

Debrin 750

Work Order ID 87089

\*87089\*

Page 1

July-10-12 3:07:19 PM

Item ID: D3953-11 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Gas Spring Spacer  
 Start Date: 7/10/12 Start Qty: 20.00 \*20\* Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 20.00 \*20\* Customer:  
 Reference:

Approvals: Process Plan: P Date: 207/11 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3953	C

100		0.00							
-----	--	------	--	--	--	--	--	--	--

\*100\*

Hardinge

Hardinge CNC Lathe Small

Memo

TURN AS PER FOLIO FA856 & DWG

FOLIO REV: AA  
 DWG REV: E

DEBURR

110	QC2- Inspect parts off machine FAI/FAIB	0.00							
-----	---	------	--	--	--	--	--	--	--

\*110\*

QC

Quality Control

Memo

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 87089

**\*87089\***

Page 2

July-10-12 3:07:19 PM

Item ID: D3953-11 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Gas Spring Spacer  
 Start Date: 7/10/12 Start Qty: 20.00 **\*20\*** Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 20.00 **\*20\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
<b>*120*</b>									
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location: <u>70</u>	0.00							
<b>*130*</b>									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

DAS  
14  
2-89

12/07/26

20

P

20

12/7/26sf

12/7/30sf

MCS 12/27/27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

July-10-12 3:07:19 PM

Page 1

Work Order ID: 87089

Parent Item: D3953-11

Parent Item Name: Gas Spring Spacer

Start Date: 7/10/12

Required Date: 8/10/12

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP RevA: New issue DD verified by:EC  
verified by:EC

IPP Rev:B as per dwg revC DD 10.03.02

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MDELRR0.750 Delrin Round Bar 0.75"		Purchased	No			100	f	147.3720	0.06	1.263158 1.400'		SL 12/07/26	

Location

Loc Qty

Loc Code

MAT055

147.372

116183

2.4

117273

1.555

117322

0.94

120722

5.28

121783

137.197

1.400'

W/O:		WORK ORDER CHANGES					
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**NOTE:** Date & initial all entries



8

7

6

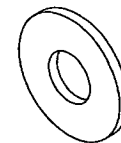
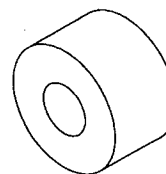
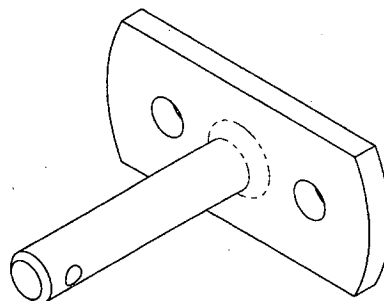
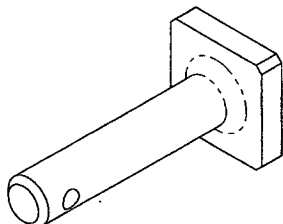
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4

3

2

1



87089  
2012-07-11

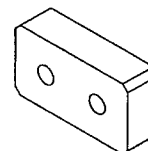
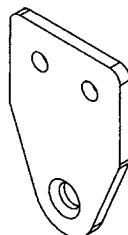
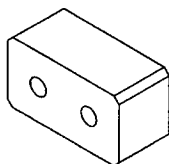
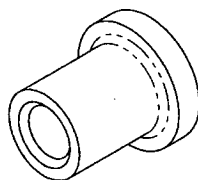
**D3953-1 GAS SPRING BRACKET**  
(FULL LID)

**D3953-3 GAS SPRING STUD, LID**

**D3953-5 GAS SPRING STUD, BASE**

**D3953-7 GAS SPRING SPACER**

**D3953-9 GAS SPRING WASHER**



RELEASED  
R 2010-07-26

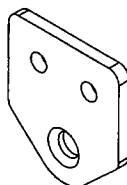
**D3953-11 GAS SPRING SPACER**

**D3953-13 GAS SPRING SPACER**  
(FULL LID)





**D3953-15 GAS SPRING BRACKET**  
(SPLIT LID)

**D3953-17 GAS SPRING SPACER**  
(SPLIT LID)

**D3953-19 GAS SPRING BRACKET**  
(SQUARE BASKET)



**D3953-21 GAS SPRING BRACKET**  
(SQUARE BASKET)

C	PARTS -19 & -21 ADDED (SHT 1 & 4); CSK CALLOUT WAS CHAM (C6-2, B6-3, C6-4); C SYMM WAS C SYM ABOUT (C7-2, C7-4); SECTION C-C REPOSITIONED TO B2-4 REASON: ADDL PARTS REQD, DRAFTING ERRORS	JPH	10.01.29
B	SHEET 3 ZONE C1, DIM 0.05 MIN WAS 0.13, MULTIPLE DIMENSIONS MINMAX REMOVED TOLERANCE ADDED. REASON: DIFFICULTY INSTALLING COTTER PIN AT NEXT ASSY.	AJS	09.11.11
A	NEW ISSUE	AJS	09.07.27
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	<div>DART AEROSPACE LTD</div> <div>HAWKESBURY, ONTARIO, CANADA</div> <div>DRAWING NO. D3953</div> <div>TITLE GAS SPRING LID COMPONENTS</div> <div>COPYRIGHT © 2005 BY DART AEROSPACE LTD</div> <div>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</div>	
DRAWN	JPH		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.29		
		SCALE	NTS

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

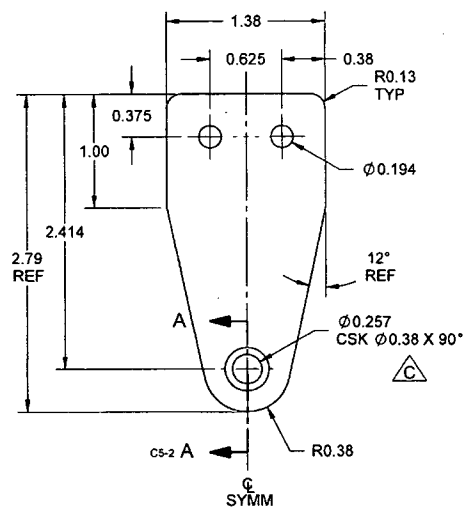
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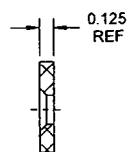
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

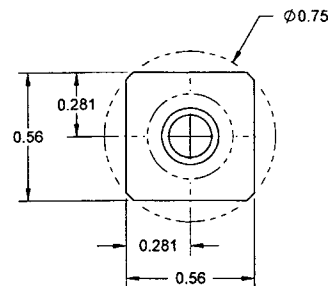
87089



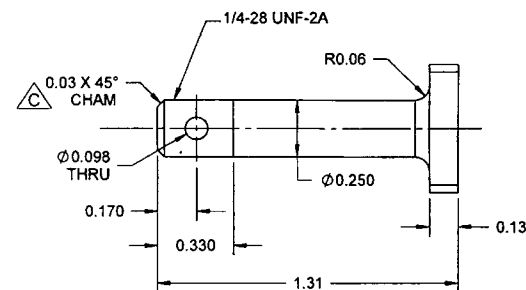
**D3953-1 GAS SPRING BRACKET**  
(FULL LID)



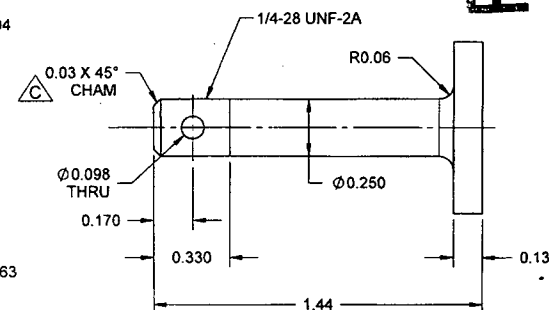
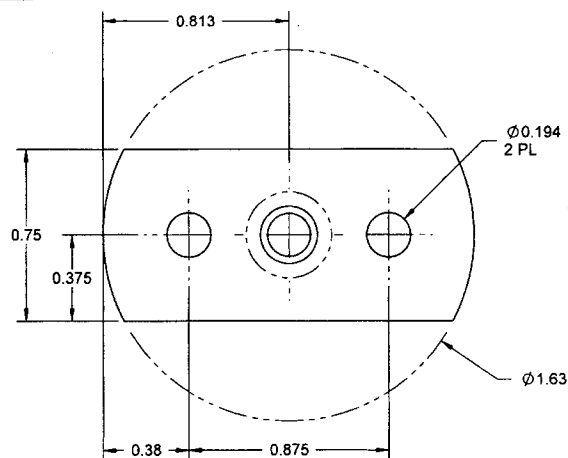
**SECTION A-A** C7-2



**D3953-3 GAS SPRING STUD, LID**



**D3953-5 GAS SPRING STUD, BASE**



**NOTES:**

- 1) MATERIAL -1: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH.  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S11GA
- 3 & -5: AISI 304 STAINLESS STEEL BAR  
REF DART SPEC M304B  
OR:  
AISI 304/316 STAINLESS STEEL ROD  
REF DART SPEC M304R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3953-X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT -1: 0.11 lbs  
-3: 0.03 lbs  
-5: 0.06 lbs

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	<b>D3953</b>	SHEET 2 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>GAS SPRING LID COMPONENTS</b>	NTS
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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R 2010-02-26

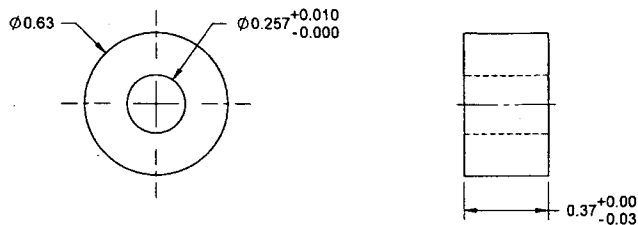
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

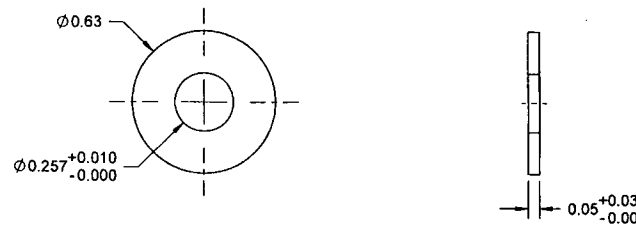
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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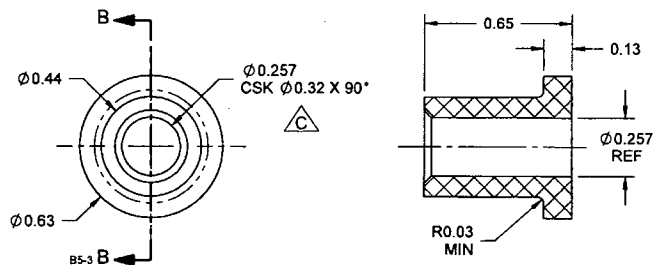


**D3953-7 GAS SPRING SPACER**



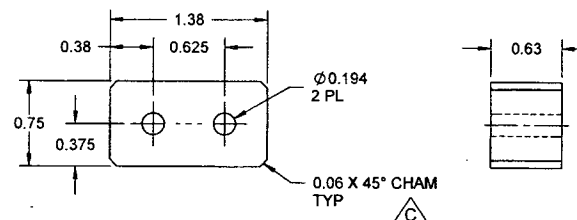
**D3953-9 GAS SPRING WASHER**

87889



**D3953-11 GAS SPRING SPACER**

**SECTION B-B 87-3**



**D3953-13 GAS SPRING SPACER**

**NOTES:**

1) MATERIAL -7,-9 & -11: DELRIN II 150E OR ACETRON GP ACETAL, BLACK  
REF DART SPEC M-DELIN-R

-13: AISI 304 STAINLESS STEEL BAR  
REF DART SPEC M304B

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED





5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION -13 ONLY: IDENTIFY WITH DART P/N "D3953-13" USING FINE POINT PERMANENT INK MARKER

7) WEIGHT -7/-9/-11: < 0.01 lbs EACH

-13: 0.17 lbs

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2010-02-26

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3953	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		<b>GAS SPRING LID COMPONENTS</b>	
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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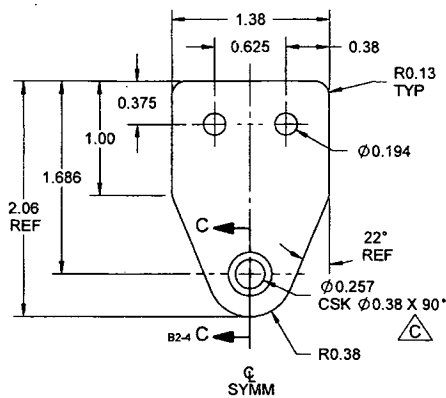
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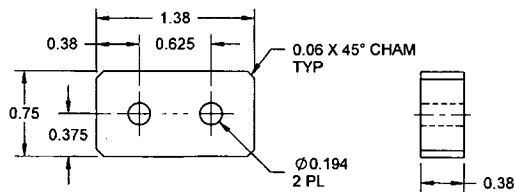
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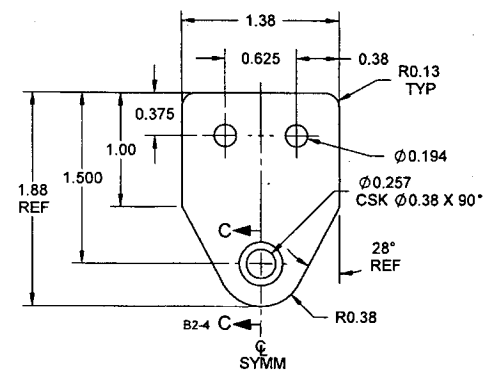
**NOTE:** Date & initial all entries



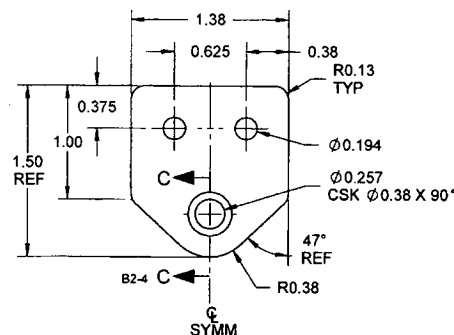
**D3953-15 GAS SPRING BRACKET**  
(SPLIT LID)



**D3953-17 GAS SPRING SPACER**  
(SPLIT LID)



**D3953-19 GAS SPRING BRACKET**  
(SQUARE BASKET)



**D3953-21 GAS SPRING BRACKET**  
(SQUARE BASKET)

**NOTES:**

1) MATERIAL -15/-19/-21: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S11GA

-17: AISI 304 STAINLESS STEEL BAR  
REF DART SPEC M304B

2) FINISH: N/A

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3953-X" USING FINE POINT PERMANENT INK MARKER

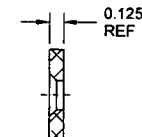
7) WEIGHT -15: 0.08 lbs

-17: 0.10 lbs

-19: 0.07 lbs

-21: 0.06 lbs

**SECTION C-C**



87089

**RELEASED**  
2010-02-26

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>W</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>E</i>	D3953	SHEET 4 OF 4
APPROVED	<i>H</i>	TITLE	SCALE
DE APPR.	<i>H</i>	GAS SPRING LID COMPONENTS NTS	
DATE	10.01.29	COPYRIGHT © 2009 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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